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AUTHOR Stacey, Susan E.
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ABSTRACT

The basic steps to be followed in the development of a questionnaire are as follows: (1) specify the goals of the study by listing all the questions the investigation is to answer; (2) review the literature related to topics being studied; (3) define all abstract concepts included in the list of objectives; (4) decide what type of item format will be used; (5) determine what type of statistical analysis is needed; (6) keep in mind item writing rules when constructing the actual questionnaire items; (7) choose an item sequence which best fits the type of survey being conducted; (8) follow guidelines for the physical appearance of the questionnaire; and (9) be sure to include clear instructions and a cover letter. One practical example is used throughout the paper to illustrate each major topic as it is discussed. The example involves a school district which wants to survey residents of the district to determine both their knowledge and perceptions about the school district and its proposed building program. (Author/RC)

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Department of Educational Research

A GUIDE TO QUESTIONNAIRE DEVELOPMENT

Susan E. Stacey

August, 1976

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INTRODUCTION:

How often have you heard someone say, "I'll just dash off a questionnaire", or "A questionnaire study is the easiest type of research to do"? Persons who make these types of statements generally have had little experience with undertaking good questionnaire-based research and believe, incorrectly, that questionnaire development is a simple task that can be completed quickly and with little effort. Many research studies begin with a superficial review of literature and a hastily constructed questionnaire. Then, when the data is collected, the problems begin. The first problem is often, "Now I have some data; what does it mean?" Frequently with such studies, the data mean very little. Either the information is in a form that cannot be analyzed; the answers to the particular questions asked do not lead to any meaningful interpretation; or most often, the data has little to do with the research questions which originally motivated the study. Unfortunately, this sequence of events occurs too frequently. This paper is designed to help researchers avoid some of the pitfalls of poor questionnaire studies but unfortunately, in the process, necessarily removes the questionnaire study from the realm of the easiest type of research to conduct. While the following description of questionnaire development shows a process which requires much time and thought, it is also a process which provides interpretable results to answer a research question.

This paper is intended to be a step by step guide to the construction of questionnaires. More specifically, this paper will include the following topics:

1. specification of the survey goals and objectives
2. review of literature
3. definition of abstract concepts
4. item format
5. statistical analysis
6. item writing rules
7. ordering of items in the questionnaire
8. guidelines for the physical appearance of the questionnaire.

One practical example will be used throughout the paper to illustrate each major topic as it is discussed. Briefly, the example involves a school district which wants to survey residents of the district to determine both their knowledge and perceptions about the school district and its proposed building program.

SPECIFICATION OF OBJECTIVES

The first and most crucial step in the development of a good questionnaire is the specification of the goals or objectives of the research study. In other words, it must be clear exactly what is to be learned or discovered as a result of the investigation. The best and most direct method of clarifying these goals is actually to list the questions the study is to answer. While the objective of a study is often stated in very general terms, the listing of questions requires an exact statement of objectives. The aim of this step is to specify the major categories of data needed. This initial stage in the design of a good questionnaire is imperative and it becomes a

reference point as the formulation of the questionnaire progresses. For example, every questionnaire item which is written should be categorized under at least one of the statements of objectives.

EXAMPLE: THE SITUATION

School District R is considering the construction of a new high school to replace two older buildings. Since there is much disagreement among residents of the district about both the feasibility and location of a new building, the school administration has decided to conduct a survey of the residents to determine what they know about the school district as well as their attitudes toward a proposed building program. The premise of the administration's public relations efforts is the assumption that a well informed public will see the need for a new school and support its building program.

More specifically, the respondents will be questioned about tax rates, building conditions, present facilities, enrollment figures, bussing, and the location of a new building. By determining areas in which people are misinformed, the administration can disseminate accurate and useful information since it is believed that the misconceptions of the public may have an effect upon their attitudes toward the building program.

EXAMPLE: OBJECTIVES

The general objective of this survey can be translated into the following set of questions which will be called "Statements of Objectives":

Knowledge

1. Do residents know:
   a. the number of schools within the district as well as the age of the buildings?
   b. the geographic size of the district?
   c. the current yearly tax rate?
   d. the percentage of enrollment that is black?

(Question d is asked because within School District R racial harmony is an important social and political issue. The black high school population is not evenly distributed between the two existing schools; high school D is 22% black while high school M is only 3% black.)

2. What do residents know about
   a. the physical condition of the present school buildings?
   b. the facilities at these buildings?

Attitudes

1. Are residents satisfied with the present curriculum being offered to high school students at the two present high schools?
2. What effect do residents believe a new building would have on taxes? Is this related to home ownership? location within the district?

3. Do residents believe that combining two high schools into one will eventually result in

   a. improved instruction?

   b. broader curriculum offering?

   c. improved relationships among students from various communities within the school district?

   d. reduced cost of operation?

   e. improve the overall quality of education?

4. Should children be bussed within the district? What is the maximum riding time that would be tolerated? Is this related to location within the district?

(This question is important because the district is larger than 55 square miles. Some students are currently bussed but the change to a single high school would involve more bussing.)

5. Do residents want a new building? Is this related to building location? home ownership? number of children in school? location within the district? age?

From each of the questions listed above, a number of questionnaire items can readily be generated. Thus, as well as defining the purposes of the study, the objectives of a survey directly influence the format as well as the content of questionnaire items.

REVIEW OF LITERATURE

The next step in questionnaire development involves a careful review of the literature of topics related to those to be included in the questionnaire. While this step is an integral part of the construction of many types of questionnaires, it may not be necessary for others. The decision about whether a review of literature is relevant depends upon the nature of the study.

A research study based upon theoretical considerations which involves a questionnaire would obviously profit from a review of literature on the theory being investigated as well as a review of previous observational or survey studies related to the theory. Such a review would insure that the form of the data collected will be consistent and interpretable with respect to earlier study in that area. Similarly, studies designed to measure particular characteristics (e.g., attitudes, preferences, information) would benefit from a review of related studies in order to examine the type of questions asked, problems encountered, and previous results found. For instance, a study examining the reactions of a large number of individuals to some counseling procedure is a situation in which a review of the literature might suggest additional ideas or methods of approaching the study and/or yield questionnaire items which were used in earlier studies and are appropriate for the research being undertaken. However, in the survey for the R School District example used in the paper, the intent is primarily description and information. Here, the goal is simply an assessment of residents' knowledge and attitudes toward the district and its building program. It is not concerned with generalizing the results or demonstrating a theory but rather gathering descriptive data. Thus the potentially relevant literature would be reports of similar surveys by this or other school districts. Such information is usually not available in published form and consequently no sources for a formal literature review are known for this particular example.

CONCEPT DEFINITION

The review of literature, if undertaken, may facilitate the next step in questionnaire construction; that is, defining any abstract concepts either implied or actually stated in the study's objectives. Concepts, according to Babbie (1975), are "abstractions or mental images summarizing a diversity of scientific objects, conditions, and events (p. 80)." These abstractions must be refined and made specific for the research being conducted. The definition attached to a concept helps give direction to the study as well as establishing a common ground between the researcher and reader. Words such as curriculum, evaluation, and leadership, which are included in many educational studies, appear, on the surface, to require little inference from observable fact but actually require very careful definition.

For instance, consider the term "social class". The questions asked of respondents in order to determine their social class would depend upon the researcher's definition of the term. Social class can be defined in terms of income, education, occupation, perception of social position, etc. Each definition would generate a different set of items. Until each concept is fully defined in the mind of the researcher, questionnaire items cannot be written. It is possible that in the process of concept definition, the emphasis within the study may be changed or re-directed. Without clear definitions of all abstract concepts, studies often become uninterpretable, i.e., the researcher may never completely specify the guiding concepts of the study and/or the respondents may react to questions involving vague concepts in many different ways so that the researcher may never really know what the respondent meant in the answers.

EXAMPLE: Concept Definition

An example of an abstract concept is found in the statements of objectives included in the R School District study. The meaning of the word "curriculum" at first seems obvious. However, curriculum is a word which lends itself to variegated definitions. Will the high school curriculum mean the number of courses offered? the content of courses? Will curriculum include mini clubs? extra-curricular activities? Questions such as these should be answered before the questionnaire is written. The question at issue in this study is whether respondents recognize the limitations on activities and offerings which the present small school D has in relation to the much broader offerings of the new consolidated high school. Consequently, for the purposes of this survey, the term curriculum will be used in the broadest sense and include course content, mini clubs, and extra-curricular activities that are of an academic nature (e.g., doesn't include interscholastic sports). This definition of the concept must then be reflected in the questions used.

ITEM FORMAT AND STATISTICAL ANALYSIS

One final step that must be considered before the actual writing of items is begun is item format. Questions may be written which require either an open or a closed response. Items having at least two options from which the respondent chooses one as the answer are called closed or structured. The closed format often helps the

researcher to focus the attention of the respondents on the particular aspect of interest as well as providing data which are easier to analyze. Closed response items are easy to construct, can be answered quickly, and require no writing from the respondent.

Those items requiring the respondent to supply answers are called open-ended. Open response questions permit respondents to express the answers in their own words spontaneously. This freedom and spontaneity are often worthwhile as a basis for a new hypothesis. This type of item format is especially useful for exploratory research or situations in which the researcher cannot foresee all possible answers in order to construct a closed response item. Free response questions are easy to ask but difficult to analyze. The type of format chosen depends upon the information being sought. Often, questionnaires are composed of some combination of the two types of items, thus capitalizing on the advantages of both.

When deciding upon the type of item format to be used in the questionnaire, some thought must be given to the analysis of the results. Generally, the closed-response items are easier to analyze while the open-ended questions often provide "quotable quotes" for the final research report. The actual type of statistical analysis to be performed, descriptive and/or inferential, should be decided upon at this stage.

The type of analysis selected will affect each questionnaire item in the following ways: the number of options, whether or not the respondent is permitted multiple answers, and the item format. Consider

a situation in which information about the respondents' ages is desired. The respondent can be asked for the date of his or her birth or to check the category in which his or her age falls. If the researcher needed only to report the percentage of respondents falling within each of five age classifications, the latter procedure would be sufficient. If the researcher wanted to calculate the average age of the respondents, the former procedure would be necessary. The statements of objectives are a guide to making a final judgment. This use of these objectives to make such an important decision once again underscores the importance of the initial step in questionnaire development. Failure to consider the statistical analysis at this point frequently results in questionnaire data that cannot be meaningfully used and reported once it is collected.

EXAMPLE: Item Format and Statistical Analysis

Consider each of the following questionnaire items:

a. Please indicate your age
_____ under 20 years
_____ 20-24 years
_____ 25-29 years
_____ 30-34 years
_____ 35-39 years
_____ 40-44 years
_____ 45-49 years
_____ 50-54 years
_____ 55-59 years
_____ 60-64 years
_____ 65 or older

b. Please indicate your age
_____ under 15 years
_____ 15-24 years
_____ 25-64 years
_____ 65 years or older

c. Please indicate your age
_____ under 20 years
_____ 20-39 years
_____ 40-59 years
_____ 60 years or older

d. Do you think a new high school should be built?
_____ YES
_____ NO

If the primary reason for including questions a, b, or c in the questionnaire is to determine the age distribution of residents within the R School District, then any of the three questions could be used, depending upon how "fine grained" a distribution is needed. However, if the question is included to determine if age affects the manner in which a respondent answers question d, then the degree of precision in question a is probably unnecessary, and the choice between b and c depends upon the question to be answered. We have no special interest in differentiating 0-15 year olds from 15-25 year olds in this present case and the 25-60 years group combines two different types of respondents of interest. For the purposes of this study, the following assumptions might be made. Persons aged 20-39 are likely to be rearing children and therefore, be closest to the educational process while residents in the 40-59 age category will probably have most of their children out of school. This latter group of people may also be more likely to own a home. Finally, those over the age of 60 may be on a fixed income and thus represent another perspective of the school and tax situation. Residents in each of these age categories might be expected to have special reasons for either agreeing to or opposing a building program. The options of questions a and b would not lend themselves to the type of analysis desired. Thus, because of the issue of interest, question c is preferred. Therefore, by first considering what is to be done with the data once it is collected, the construction of items which will yield the desired information is made easier.

The relationship between questions c and d can be illustrated in the following example:

Question C

Question d	under 20	20-39	40-59	60 and older
YES				
NO				

ITEM WRITING RULES

After the objectives are clearly stated, the literature reviewed, all abstract concepts defined, the item format chosen, and a statistical analysis decided upon, the actual writing of questionnaire items may be undertaken.

Because the function of a question in a questionnaire is to elicit a particular bit of information, it is essential that the respondent be able to read and understand the question as the researcher intended. To construct an item that has exactly the same meaning for everyone is a difficult task. Listed below are some general rules which should be followed as each question is written.

1. Generally, keep the question short. Using fewer words (preferably 20 or less) will make the question easier to read and less confusing. Simplicity is important.

EXAMPLE:

Four items are given below for this set of options:

_____ 25 square miles

_____ 35 square miles

_____ 45 square miles

_____ 55 square miles

(a) How many square miles in area would you think the R School District is in size? (16 words)

(b) The R School District includes an area of approximately how many square miles? (13 words)

(c) How many square miles does the R School District include? (10 words)

(d) How large is the R School District? (7 words)

Each question is improved as it is simplified and made shorter.

2. State the question as clearly as possible. Knowing the purpose of each question often makes it easier to avoid ambiguity in wording. Here again, the importance of explicit objectives is emphasized.

3. Avoid biased terms and words that have double meanings. As well as some of the more obvious examples of words which may have several meanings, words such as you, all, any, few, and fair are sometimes too vague.

4. Avoid the use of double barreled (asking two questions at once) and double negative questions. These types of items can be confusing to the respondent as well as to the researcher when he attempts to interpret a response.

EXAMPLE:

(a) Do you think the new building program should include plans for a swimming pool and an athletic stadium to be built adjacent to the new high school?

Suppose a resident responds positively. Does this mean he is in favor of both the pool and stadium or only one of them? How should his answer be interpreted? Instead of question (a), two separate items should be written.

(b-1) Do you think the new building program should include plans for a swimming pool?

(b-2) Do you think the new building program should include plans for an athletic stadium to be built adjacent to the new high school?

5. Beware of "loaded" questions and words. A loaded word is one which suggests automatic approval or disapproval because it is emotionally colored. Examples include words such as intelligent, bosses, and pollution.

6. Avoid "leading" questions. These questions are worded so as not to be neutral. They suggest what the answer should be.

EXAMPLE:

(a) Although building plans are being made by the school administration for a new high school, do you think a new high school should be built?

The introductory phrase in this question should be eliminated because it "suggests" an answer. Instead, the question should be written as follows:

(b) Do you think a new high school should be built?

7. The choices in a multiple response item should be mutually exclusive and exhaustive.

EXAMPLE:

Where do you think a new high school should be located?

(a) _____ Carroll Township
_____ Restelli Plan
_____ Other (please specify)

(b) _____ Carroll Jr. High School Site
_____ Restelli Plan
_____ Other (please specify)

Because the Restelli Plan is a plot of land located in Carroll Township, the options in (a) are not mutually exclusive. By making the first option more specific, the options become mutually exclusive. By including the third option (other), the choices become exhaustive.

8. Avoid "talking down" to the respondents. While it is important to word questions so that the respondent understands what is being asked, care must be taken not to insult the respondent's intelligence.

9. Do not assume that everyone has the information being sought. The researcher must avoid giving the respondent the impression that he or she "ought to know" the answer. By doing this, the respondent often will guess simply not to appear uninformed.

EXAMPLE:

Check the option which best describes the general physical condition of each of the following school buildings.

(a) Excellent Good Fair Poor

(b) Excellent Good Fair Poor Don't Know

By adding the "Don't Know" in (b), the respondents are not given the impression that they are expected to know the answer.

Payne (1951) has written an entire book on the subject of question phrasing. A summary of his suggestions are in Appendix A.

ORDERING OF ITEMS

After all of the questions are completed, the order in which they will appear in the questionnaire must be considered. A method frequently used, according to Oppenheim (1966), is the "funnel approach". The questionnaire begins with very broad and general questions and becomes more specific as it progresses. Therefore, the first few questions are often open-ended with the more structured items being introduced

later. This "funnel approach" is essentially the "quintamensional plan of question design" presented by Gallup (1947). His plan approaches any topic from five different paths. He suggests that the first questions be designed to ascertain whether or not the respondent is aware of the topic. These questions are generally free answer. Next, more free response questions are asked to determine the respondent's uninfluenced attitudes or general feelings about the issue. Following this set of questions, closed response items are used to elicit specific attitudes about various aspects of the subject being investigated. In order to discover the reasoning behind his attitudes, the respondent is asked a series of either closed or open-ended questions. Finally, the intensity of the respondent's views is measured.

The methods described above are used most frequently with questionnaires attempting to measure respondents' attitudes. A different sequence scheme involves organizing questions around similar topics or some other logical ordering procedure. For example, a series of factual questions could be followed by attitudinal questions or vice versa. Because each study presents its own unique problems, only general principles for the best item sequence can be suggested. When deciding on an order for questionnaire items, the following ideas should be considered:

1. Avoid "turning off" the respondent with irrelevant questions.
2. Avoid influencing the respondents' thinking at the beginning of the questionnaire so that you are sure the responses obtained are their own.
3. Attempt to make the questionnaire attractive and interesting to the respondent.
4. Do not use questions which the respondent may find intimidating.

The final choice of item sequence is determined by the topic being studied.

EXAMPLE:

The RSD questionnaire uses the logical ordering system described above. The first set of items (questions 1-16) attempt to measure respondents' knowledge and are factual. The next sequence of items (questions 17-20) measures attitudes. Finally, the last set of questions is factual and designed to elicit personal information (e.g., age, residence) from the respondent.

GENERAL COMMENTS: Questionnaire Format

There are a few additional points to keep in mind once the questions have been ordered. The first rule is to maximize the "white space" in the questionnaire. Aside from being easy to read and having a neat appearance, a questionnaire with a maximum amount of space allows the respondent adequate room to answer all questions as well as to enter any additional comments that are needed. Both the items and pages should be clearly numbered so that the respondent will not become confused while completing the questionnaire. If it is necessary to use both sides of a page, be sure to put the word "over" at the bottom of each page.

When using close-ended questions, a general rule to follow is to arrange all response categories vertically rather than horizontally. This helps reduce the possibility of marking the blank after an intended response rather than before it. Also, if there are sections of the questionnaire which consist of long checklists, skip a line after small clusters of items to help the respondent place his answers in the

appropriate spaces. When listing the questionnaire options, be consistent and place all of them either on the left or on the right side. If the options are placed on both sides, it becomes a more difficult task to complete the questionnaire because the respondent must keep looking for the answers.

Finally, each questionnaire should include a cover letter and a set of instructions for the respondent. The cover letter should give the respondent some idea of what the study is about and why he or she should complete the form. This letter should be short (never more than one page) and concise. More precisely, the cover letter should include the following:

1. Remarks outlining the nature of the study and how the data will be used.

2. Mention that a self-addressed stamped envelope has been included for the respondent's convenience.

3. Mention that in return for his time and effort, the respondent may obtain a copy of the final report. Although most persons do not take advantage of this offer, the researcher should be sure to send a report to those who request one.

4. Unless it is <u>essential</u> that the questionnaire be completed by some date, remarks such as "Please complete as soon as you can" are better than "Complete and return before September 10."

5. Some statement explaining why questions concerning the respondent's age, sex, salary, etc., have been included should be provided.

The directions, printed on the questionnaire itself, will usually involve explaining the manner in which questions should be answered. Occasionally, simple definitions need to be included. But, no matter what type of instructions are used, the important fact to be remembered is that they must be clear, leaving no uncertainty in the mind of the respondent con-

cerning how the questionnaire is to be completed. Both the cover letter and directions for the RSD study have been included with the questionnaire in Appendix B.

In summary, the basic steps to be followed in the development of a questionnaire are as follows:

1. Specify the goals of the study by listing all the questions the investigation is to answer.
2. Review the literature related to topics being studied.
3. Define all abstract concepts included in the list of objectives.
4. Decide what type of item format will be used.
5. Determine what type of statistical analysis is needed.
6. Keep in mind item-writing rules when constructing the actual questionnaire items.
7. Choose an item sequence which best fits the type of survey being conducted.
8. Follow guidelines for the physical appearance of the questionnaire.
9. Be sure to include clear instructions and a cover letter.

If the steps described in this paper are followed during the development of a questionnaire, the entire process will be simplified and the results will be in keeping with stated objectives of the study. Furthermore, the data obtained can be analyzed and meaningfully interpreted. Thus, by following these procedures, the instrument developed will have served the purpose for which it was intended.

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APPENDIX A

FORTY-TWO HINTS FOR DEVELOPING A BETTER QUESTIONNAIRE

(Adapted from S. L. Payne's "A Concise Checklist of 100 Considerations" in The Art of Asking Questions.)

A. The Issue

1. Make sure that you have a clear understanding of the issue yourself. This is of first importance if you are to make it meaningful to others.

2. See that the issue is fully defined.

3. State the issue as precisely as you can at first. If in later versions you elect to sacrifice some precision, then at least the sacrifice will be recognized.

4. Decide what type of question best fits the issue — open- or close-ended.

B. The Open-ended Question

5. Is it necessary to ask this free-answer question? Remember that the coding of answers to this type of question can be tedious.

6. Consider whether it is convertible to a categorical type of question. If the different points of view on the issue are generally well known, then you may wish to present them as alternatives (multiple choice) rather than leave them to the respondents to articulate in their various ways.

7. Make the question sufficiently directive. A free answer question can be too broad and leave respondents free to give answers from every direction. By carefully establishing the course, however, you can confine the answers to a particular frame of reference.

C. Questions with only Two Alternatives

8. In the argument type of two-way questions, it may be better to state both sides of the argument so that the respondent knows both the pro and con.

9. "Don't Know" or "No Opinion" answers have to be provided for except in rare instances.

10. Ordinarily the choices should be mutually exclusive. If they cannot be made so, then you should add an answer box for the "Both" category.

D. Multiple Choice Questions

11. The choices need to be mutually exclusive in the multiple-choice question even more than in the two-way question.

12. All possible alternatives should be included if a true expression of choices is desired. If combinations of the alternatives are possible, those combinations should be included.

13. The number of alternatives need not always be limited to only five or six.

14. Decide whether you want respondents to express one choice or more than one and then indicate your decision clearly for them.

15. Numbers should be listed in logical order out of courtesy.

16. Placing the correct numbers in a knowledge question at the extremes of the list is a wise move because respondents tend to guess the middle or average ones.

E. Other Types of Questions

17. Double-barreled questions deserve to be split into separate questions for each of the two issues except in special cases where two issues necessarily have to be asked together.

18. Serialized questions save time and irritation in cases where the same introduction and same alternatives apply to a number of questions.

19. The quintamensional design reminds us of five elements in an opinion—awareness, general opinion, specific opinion, reasons, and intensity.

F. Treatment of Respondents

20. Avoid the appearance of talking down or otherwise insulting the intelligence of your respondents.

21. Word your question according to principles of good grammar but don't make it sound stilted.

22. Beware the double entendre and shun the triple. "Please check your sex", for example, has three meanings -- mark, restrain, and verify.

23. Double negatives should not be inflicted upon anyone.

24. A difficult problem is to make your question specific enough without making it over-elaborate.

25. Remember that your fine distinctions will often not be understood by the respondents.

C. The Words Themselves

26. Use as few words as necessary. You can ask most questions in twenty words or less.

27. Use simple words if you can find any that adequately express the idea.

28. Trade jargon may be all right to use in the trade, if all the trade uses it, but it will not do for the general public.

29. Check in the dictionary to see if the word actually does have the meaning you intend.

30. While there, see what other meanings it may have which could confuse the issue.

31. If you use a synonym, make sure that it actually is synonymous with the idea at hand.

32. Words that are frequently used are to be preferred, other things being equal, of course.

33. Familiar words are the most useful if they don't have too many meanings in context.

H. Loading

35. Among the possible prestige influences to be eliminated or counter-balanced are appeals to one's wisdom, knowledge, fairness, affluence, physical attributes, morals, and devotion to duty.

36. Expressions of wishful thinking need to be exposed for what they are rather than taken as predictions of future action.

37. Unless a stereotype is itself an important part of the issue, you will want to avoid using it when obtaining evaluations of the issue.

38. A personalized question may produce different answers than an impersonalized one.

39. Answers to hypothetical questions may not be so valid in predictions of future behavior as answers in terms of past experiences may be.

40. You may find it necessary to establish some kind of standards of comparison for respondents to use.

I. Readability

41. Instead of the indefinite "how much?" approach, you can save work for yourself by indicating the system in which you want the answers to come--percentages, dollars, miles, pints, etc.

42. For possible trend purposes, try to imagine how the question will sound five years hence and adjust it to fit that possibility.

APPENDIX B

COVER LETTER AND QUESTIONNAIRE

PLEASE NOTE:

The study used as an example in this paper is the creation of the author. The Ringgold School District has never designed nor undertaken the survey described. Furthermore, the author has no official connection with the aforementioned school district.

Dear Resident:

You are among the 200 residents of the Ringgold School District who were randomly selected to participate in this survey. The study is an attempt to elicit general information about various aspects of the school district and its operation. Questions concerning residence, age, and home ownership have been included in order to determine if, for instance, older persons respond to selected questions differently from younger residents. All responses will be confidential.

Please complete and return the enclosed questionnaire as soon as possible. A self-addressed stamped envelope has been included for your convenience. Copies of the results of this survey will be made available to you in return for your time and effort.

Thank you for participating!

Directions: Please complete this questionnaire by placing an X in the blank preceding your answer. Space has been provided for any additional comments you may want to make.

1. How many elementary school buildings were in operation in the Ringgold School District during the 1975-1976 school year?

___ 9
___ 10
___ 11
___ 12

2. How many junior high school buildings were in operation in Ringgold School District during the 1975-1976 school year?

___ 1
___ 2
___ 3
___ 4

3. The oldest building still being used by the district was built

___ before 1980.
___ 1890-1910.
___ 1911-1930.

4. The number of school buildings built before 1930 and still in operation in Ringgold School District is

___ 0-1.
___ 2-3.
___ 4-5.
___ 6-7.
___ 8-9.

5. How large is the Ringgold School District?

___ 25 square miles
___ 35 square miles
___ 45 square miles
___ 55 square miles

6. The 1975-1976 tax rate in Ringgold School District was how many mills?

___ 55
___ 60
___ 65
___ 70
___ 75

7. Check the option which best describes the general physical condition of each of the following school buildings. (Carroll-CJHS; Finleyville-FJHS; Donora-DHS; Monongahela-MHS)

	Very Good	Good	Fair	Poor	Don't Know
CJHS	___	___	___	___	___
FJHS	___	___	___	___	___
DHS	___	___	___	___	___
MHS	___	___	___	___	___

8. Check the option which best describes the condition of each of the following facilities at Donora Senior High School.

	Very Good	Good	Fair	Poor	Don't Know
Auditorium	___	___	___	___	___
Athletic field	___	___	___	___	___
Business area	___	___	___	___	___
Gymnasium	___	___	___	___	___
Home econ. area	___	___	___	___	___
Industrial arts	___	___	___	___	___
Library	___	___	___	___	___
Physical education equipment	___	___	___	___	___

Comments:

9. Check the option which best describes the condition of each of the following facilities at Monongahela High School.

	Very Good	Good	Fair	Poor	Don't Know
Auditorium	___	___	___	___	___
Athletic field	___	___	___	___	___
Business area	___	___	___	___	___
Gymnasium	___	___	___	___	___
Home econ. area	___	___	___	___	___
Industrial arts	___	___	___	___	___
Library	___	___	___	___	___
Physical education equipment	___	___	___	___	___

Comments:

10. What proportion of the high school students in the district attend Monongahela High School?

___ 55% attend MHS (45% attend DHS)
___ 65% attend MHS (35% attend DHS)
___ 75% attend MHS (25% attend DHS)
___ 85% attend MHS (15% attend DHS)

11. What percent of the student enrollment for the entire school district is black?

___ less than 5%
___ 5%-9%
___ 10%-14%
___ 15%-24%
___ 25%-34%
___ 35% or more

12. For each of the following schools, what percent of the school's enrollment is black? (Carroll-CJHS; Finleyville-FJHS; Donora-DHS; Monongahela-MHS)

CJHS	FJHS	DHS	MHS
___ 0-4%	___ 0-4%	___ 0-4%	___ 0-4%
___ 5-9%	___ 5-9%	___ 5-9%	___ 5-9%
___ 10-14%	___ 10-14%	___ 10-14%	___ 10-14%
___ 15-24%	___ 15-24%	___ 15-24%	___ 15-24%
___ 25-34%	___ 25-34%	___ 25-34%	___ 25-34%
___ 35-50%	___ 35-50%	___ 35-50%	___ 35-50%

13. Which option best describes each aspect of the curriculum offered to students at Donora Senior High School?

	Very Good	Good	Fair	Poor	Don't Know
Academic Areas					
Business	___	___	___	___	___
English	___	___	___	___	___
Fine Arts	___	___	___	___	___
Foreign Languages	___	___	___	___	___
Mathematics	___	___	___	___	___
Science	___	___	___	___	___
Social Studies	___	___	___	___	___
Health and Physical Education	___	___	___	___	___

	Very Good	Good	Fair	Poor	Don't Know
Other Areas					
Guidance	___	___	___	___	___
Mini Clubs	___	___	___	___	___
Band	___	___	___	___	___
Extracurricular Activities	___	___	___	___	___

Comments:

(over)

14. Which option best describes each aspect of the curriculum offered to students at Monongahela High School?

	Very Good	Good	Fair	Poor	Don't Know
Academic Areas					
Business	___	___	___	___	___
English	___	___	___	___	___
Fine Arts	___	___	___	___	___
Foreign Languages	___	___	___	___	___
Mathematics	___	___	___	___	___
Science	___	___	___	___	___
Social Studies	___	___	___	___	___
Health and Physical Education	___	___	___	___	___
	Very Good	**Good**	**Fair**	**Poor**	**Don't Know**
Other Areas					
Guidance	___	___	___	___	___
Mini Clubs	___	___	___	___	___
Band	___	___	___	___	___
Extracurricular Activities	___	___	___	___	___

Comments:

15. How do you think the variety of course options compares for the two high schools?

___ variety of options about the same
___ wider variety of options at DHS
___ wider variety of options at MHS

16. If construction of a new high school was started within the next year, how much of an increase in the school tax rate do you think would result?

___ less than 5 mills
___ 5-10 mills
___ 11-15 mills
___ 16-20 mills
___ 21-25 mills

17. Do you think that combining the two existing high schools into one would result in:

	Yes	No	Don't Know
improved instruction?	___	___	___
broader curriculum offerings?	___	___	___
an improved overall quality of education?	___	___	___
reduced cost of operation?	___	___	___
improved relationship among students from the various communities within the district?	___	___	___

18. Most students attending the new high school would have to ride a school bus. What is the maximum time for a one-way bus trip which you consider acceptable for high school students?

_____ minutes

19. Do you think a new high school should be built?

___ No, skip to question 21.
___ Yes, answer question 20A,B,C.

20A. Where do you think the new high school should be built?

___ Carroll Jr. High site
___ Restilli Plan
___ Other (specify) _____

20B. Do you think the building program should include plans for a swimming pool at the new high school?

___ Yes
___ No

20C. Do you think the building program should include plans for an athletic stadium to be built adjacent to the new high school?

___ Yes
___ No

21. Indicate the township, borough, or city in which you live.

___ Carroll Township
___ Donora Borough
___ Finleyville
___ Monongahela
___ New Eagle Borough
___ Nottingham Township
___ Union Township

22. Do you own your home?

___ Yes
___ No

23. Indicate your age.

___ under 20 years
___ 20-39 years
___ 40-59 years
___ 60 years or older

24. Do you have any children younger than 5 years of age?

___ Yes
___ No

25. Do you have any children who attended a public school this past year?

___ Yes
___ No

26. Do you have any children who attended a private or parochial school this past year?

___ Yes
___ No